REMARKS

Claims 1-56 are pending. Claims 1-3, 6-8, 11, 13-14, 21-23, 26-28, 31, and 33-34 are rejected under 35 U.S.C. § 102(a). Claims 15-20 and 35-38 are rejected under 35 U.S.C. § 103(a). Claims 4-5, 9-10, 12, 24-25, 29-30, and 32 are objected to as being dependent upon a rejected base claim. Claim 35 has been amended. Claims 39-56 have been added.

Independent claim 1 is rejected as being anticipated by applicant's admitted prior art at pages 1-5 of the instant specification. Claim 1 recites "A wireless communication system, comprising: transmitter circuitry comprising circuitry for transmitting a plurality of frames to a receiver in a first cell; wherein each of the plurality of frames comprises a bit group; wherein the bit group uniquely distinguishes the first cell from a second cell adjacent the first cell; wherein the transmitter circuitry further comprises circuitry for inserting a bit sequence into the bit group; and *wherein the bit sequence is selected from a plurality of bit sequences such that successive transmissions by the transmitter circuitry comprise a cycle of successive ones of the plurality of bit sequences.*" (emphasis added).

The invention of claim 1 is directed to a method distinguishing actual cell bit sequences from false cell bit sequences. In this regard, an actual cell bit sequence corresponds to a user cell. A false bit sequence corresponds to a nearby or adjacent cell. A base station of the prior art used a unique bit sequence corresponding to the base station cell. Base stations in adjacent cells used different bit sequences corresponding to their respective cells. User stations within each cell used the same bit sequence as the base station except that it was circularly shifted in time so that each user station could be distinguished from other user stations within the cell. (page 3, lines 11-13). All communication between base stations and user stations of the prior art, therefore, used different midambles. These midambles, however, remained unchanged from frame to frame for communication between a particular base station and a user station.

The present invention differs from the prior art in that successive frame to frame transmissions from a base station to a user station use different midambles as explained at page 17, lines 12-19 and in the state diagram of Figure 8. For example, a significant improvement may be realized by cycling through two or four different midambles on successive frames. (page 17, lines 24-27). In a particular embodiment of the present invention, these different midambles may correspond to respective system frame numbers. (page 17, line 29 through page 18, line 7). In view of this explanation, applicants respectfully submit that neither applicants' admitted prior art nor any of the cited references disclose "the bit sequence is selected from a plurality of bit sequences such that *successive transmissions by the transmitter circuitry comprise a cycle of successive ones of the plurality of bit sequences*" as required by claim 1. Thus, claim 1 and depending claims 2-3, 6-8, 11, and 13-14 are patentable over applicants' admitted prior art under 35 U.S.C. § 102(a).

Claims 21-36 recite "A method of operating a wireless communication system, comprising the steps of: transmitting a plurality of frames by transmitter circuitry to a receiver in a first cell; wherein each of the plurality of frames comprises a bit group; wherein the bit group uniquely distinguishes the first cell from a second cell adjacent the first cell; wherein the transmitting step comprises inserting a bit sequence into the bit group; and *wherein the bit sequence is selected from a plurality of bit sequences such that successive transmissions by the transmitter circuitry comprise a cycle of successive ones of the plurality of bit sequences.*" Applicants' admitted prior art fails to disclose that successive transmissions by the transmitter to a receiver comprise a cycle of bit sequences. Thus, claims 21-23, 26-28, 31, and 33-34 are patentable over applicants' admitted prior art under 35 U.S.C. § 102(a).

Claims 17-20 recite "A wireless communication system, comprising: receiver circuitry comprising *circuitry for receiving a plurality of frames from a transmitter in a first cell* . . . wherein the receiver circuitry further comprises *circuitry for identifying paths in the plurality of frames as actual paths in response to a comparison of path positions resulting from successive correlation measures between successive ones of the plurality of bit sequences in the cycle and the bit group in each of the plurality of frames.*" Claims 37-38 recite "A method of operating a wireless

communication system, comprising the steps of: *receiving a plurality of frames from a transmitter in a first cell . . . identifying paths in the plurality of frames as actual paths in response to a comparison of path positions resulting from successive correlation measures between successive ones of the plurality of bit sequences in the cycle and the bit group in each of the plurality of frames*." (emphasis added). Applicants' admitted prior art fails to disclose that such a comparison of path positions could be made in the plurality of frames by correlation between successive ones of the plurality of bit sequences. Such bit sequences of the prior art between a transmitter and receiver in a first cell were always the same. Applicants' admitted prior art combined with any of the cited references, therefore, fail to disclose all elements of the claimed invention as required for *prima facie* obviousness. Thus, claims 15-20 and 35-38 are patentable under 35 U.S.C. § 103(a).

New claims 39-56 have been added to more specifically claim features of the present invention as described at page 16, line 7 through page 18, line 28. No new matter is added.

In view of the foregoing, applicants respectfully request reconsideration of claims 1-38 and allowance of claims 1-56. If the Examiner finds any issue that is unresolved, please call applicants' attorney by dialing the telephone number printed below.

Respectfully submitted,

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